

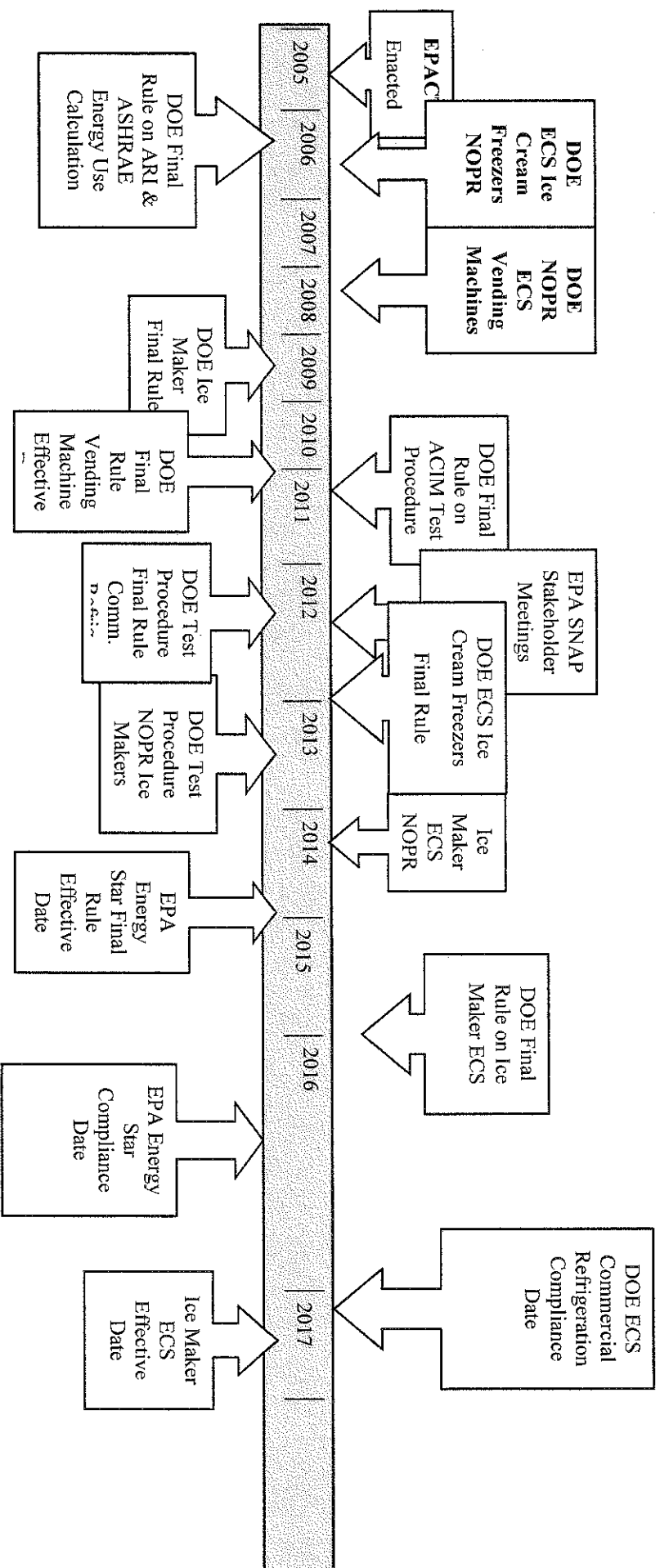
# NAFEM®

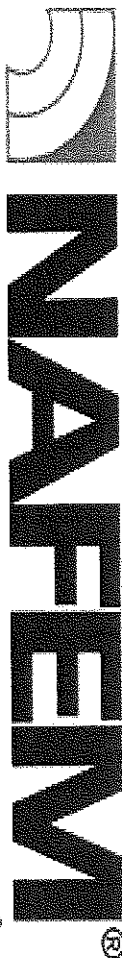
## North American Association of Food Equipment Manufacturers

### Commercial Refrigeration

### Regulatory Requirements

2005-2017





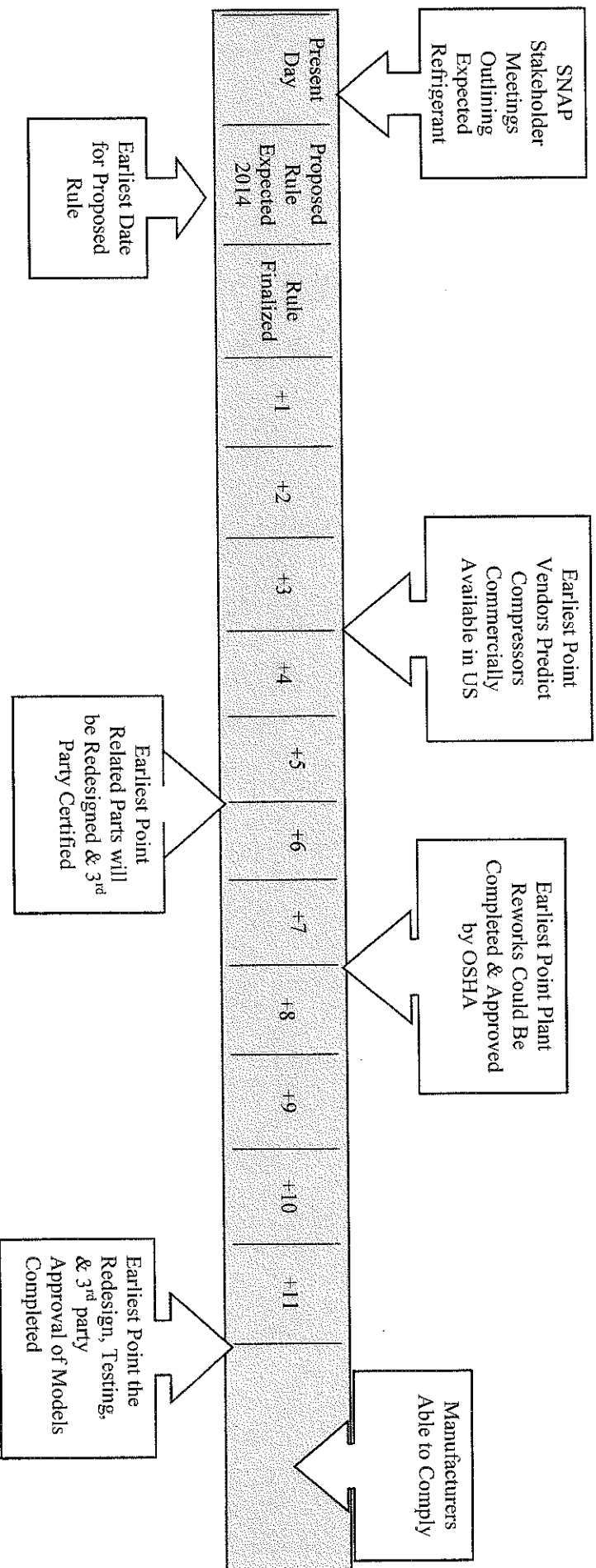
**North American Association of  
Food Equipment Manufacturers**

## Refrigerant Transition Timeline

### Information

This timeline is based on NAFEM members' conversations with their vendors, suppliers, and distributors as well as the

- 2-3 Year Vendor Development Period for Compressors to be Widely Commercially Available in the US Market
- 2 Year Development Period for Related Parts to be Redesigned & 3<sup>rd</sup> Party Certified
- 2 year Rework and Approval of Manufacturing Facility by OSHA
- 4-5 year Redesign, Test, and 3<sup>rd</sup> Party Approval of Models to Transition





## **MEMBER MANUFACTURER PROFILE**

### **2 Plants in Rural Georgia**

### **Distribution Centers in 5 States**

#### **Manufactures:**

- Refrigerators
- Reach-In Coolers
- Undercounter
- Display Cases
- Remote Condensers
- Ice & Water Dispensers
- Ice Machines
- Ice Bins
- Lancer Dispensers

### **Timeline for Conversion to Alternate Refrigerants Isobutene or Propane: 10-12 years**

- 2-3 years Vendor Development Period for Compressors to be Widely Commercially Available for Commercial Refrigerators and Ice Makers in the US Market
- 2 year Development for Related Parts to be Redesigned and 3<sup>rd</sup> Party Certified
- 2 year Rework and Approval of Manufacturing Facility by OSHA
- 4-5 year Redesign, Test, and 3<sup>rd</sup> Party Approval of Models to Transition

### **Issues**

- Compressor manufactures do not have a full line of products ready for use in the US market for the new refrigerants.
- Legal constraints will add significant time needed to prepare company for full compliance with this transition.
  - Past refrigerant transitions took 5-6 years to redesign and approve manufacturer's line of units from R-22 to R-404a in the 1990's.
- The federal government has not approved use of these refrigerants for more than 150 grams which hampers manufacturer's ability to integrate the refrigerants into larger products.
- Energy efficiency standard compliance dates are overlapping with the alternate refrigerant transition and complicate the engineering and compliance.



161 North Clark Street - Suite 2020  
Chicago, Illinois 60601 USA  
phone +1.312.821.0201  
fax +1.312.821.0202  
[www.nafem.org](http://www.nafem.org)

## WHAT IS NAFEM?

The North American Association of Food Equipment Manufacturers (NAFEM) is a trade association of nearly 550 foodservice equipment and supplies manufacturers providing products for food preparation, cooking, storage and table service. In our 60+ years, NAFEM has emerged as a foodservice industry leader.

## NAFEM REPRESENTS SMALL BUSINESSES

- 220 NAFEM member manufacturers have an annual revenue of \$5M or less
- 78 NAFEM member manufacturers have an annual revenue of \$5-10M
- 89 member manufacturers have an annual revenue of \$25-10M

## NAFEM AND COMMERCIAL REFRIGERATION

NAFEM's membership includes 154 companies that manufacture at least one product in the refrigeration equipment category.

## REFRIGERATION PRODUCTS NAFEM MEMBERS MANUFACTURE

- |                               |                              |
|-------------------------------|------------------------------|
| • Blast Chillers              | • Freezers, Roll-in          |
| • Cabinets, Refrigerated      | • Freezers, Soft Ice Cream   |
| • Cook-Chill Systems          | • Freezers, Roll-in          |
| • Coolers, Bar Back           | • Gelato Equipment           |
| • Coolers, Beverage           | • Ice Crushers               |
| • Coolers, Display/Floral     | • Ice Machines               |
| • Coolers, Milk               | • Ice Storage & Transport    |
| • Coolers, Reach-in           | • Refrigerated Merchandisers |
| • Coolers, Walk-in            | • Refrigerated Pass-throughs |
| • Coolers, Wine               | • Refrigerated Drawers       |
| • Coolers, Display/Pastry     | • Compressors & Condensers   |
| • Deli Cabinets, Cases        | • Refrigeration Evaporators  |
| • Dispensers, Ice             | • Refrigerator Bases         |
| • Dispensers, Ice & Beverage  | • Refrigerators, Reach-in    |
| • Dispensers, Ice Cream       | • Refrigerators, Roll-in     |
| • Dispensers, Ice Tea         | • Refrigerators, Walk-ins    |
| • Freezer Bases, Undercounter | • Slush Machines             |
| • Freezers, Reach-in          | • Sno-Cone Machines          |

### Contact:

**Charlie Souhrada, CFSP**

Director, Member Services

North American Association of Food Equipment Manufacturers

Phone: +1.312.821.0212 • Email: [csouhrada@nafem.org](mailto:csouhrada@nafem.org)